Rankin Scale (mRs) was 3.8 , SD 0.8, 95 CI [3.4 - 4.1]. At day 15 follow-up NIHSS, was 11; SD 4.5; 95 CI [9.3 - 12.8]; mean mRs score was 1.9, SD 0.7, 95 CI [1.7 - 2.2], (p = 0.000 and 0.000 respectively).Only one patient report nightmares as adverse event. **CONCLUSIONS:** The current study demonstrate that cerebrolysin treatment improves functional outcome safely in Mexican patients with ASIS. Future double-blind studies with larger sample sizes will further help to explore causal benefits of this drug in stroke outcome.

PCV4

A PHYSICIAN-CENTERED INTERVENTION TO IMPROVE CONTROL OF BLOOD PRESSURE: SYSTEMATIC REVIEW AND META-ANALYSIS

Lima KM[1], Ribeiro RA[1], Ziegelmann P[2], Leal L[1], Schmidt F[3], Polanczyk CA[1]
[1]*Hospital Moinhos de Vento, Porto Alegre, Brazil,* [2]*, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil,* [3]*Hospital de Clínicas de Porto Alegre, Porto Alegre, Brazil*

OBJECTIVES: To review trials of physician-centered interventions to reducing systolic blood pressure (SBP) and diastolic blood pressure (DBP). **METHODS:** Systematic review and meta-analysis. We searched MEDLINE, EMBASE and Cochrane Central for all-language articles up to September 2014. We included randomized controlled trial (RCT) of physician-centered interventions for hypertension compared with usual care or minimal intervention in primary care patients. Data were pooled using a random effect meta-analysis model. The effect were expressed as the weighted mean difference (WMD). **RESULTS:** Twenty-five trials of 7595 citation were included. Seventeen studies were cluster RCT, one trial was factorial and cluster trial. The remaining seven studies were randomized at individual patient level; five of them used a two-by-two factorial design. Two studies did not report any estimates of variance. Overall, 23 trials (43.489 participants) was contribute to the meta-analysis. The physician-centered intervention were categorized as computer decision support (6 trials), stepped treatment algorithm (6), Medical Education (4), Audit and feedback (3) and Multifaceted (4). Methodological quality of included studies was rather low. Only interventions that the main focus were stepped treatment algorithm showed significant reductions in blood pressure: weighted mean difference, systolic - 4.2 mmHg; 95% confidence interval -5.3 to -3.2; I^2, 80.1% and diastolic -1.6 mmHg; 95% confidence interval -2.8 to -0.49; I^2. 93.4%. For the remaining five categories did not show to reducing blood pressure. Subgroup analyses by study design explained considerable heterogeneity in stepped treatment algorithm effect. **CONCLUSIONS:** Physician-centered interventions based in stepped treatment algorithm showed significantly reductions of systolic and diastolic blood pressure. The magnitude of reduction in blood pressure is likely to prevent stroke and death in patients.

PCV5

ANTIPSYCHOTIC EXPOSURE AND RISK OF STROKE: A SYSTEMATIC REVIEW AND META-ANALYSIS OF OBSERVATIONAL STUDIES

Hsu W[1], Esmaily-Fard A[2], Lee C[3]
[1]*National Taiwan University Hospital, Taipei City, Taiwan,* [2]*The University of Texas MD Anderson Cancer Center, Houston, TX, USA,* [3]*National Taiwan University Hospital, Yunlin Branch, Douliou, Taiwan*

BACKGROUND: Use of antipsychotic medications has been associated with increased risk of cerebrovascular events; however, this association remains questionable given conflicting evidence in the literature. **OBJECTIVES:** We conducted a systematic review and meta-analysis to determine the risk of stroke with the use of antipsychotic medications. **METHODS:** All articles published between 1970 and February 2015 were identified by comprehensively searching PubMed, MEDLINE and EMBASE without language restrictions. Observational studies comparing stroke outcomes in antipsychotic patients with non-users were selected. Two authors independently extracted study characteristics and indicators of study quality. Newcastle-Ottawa Scale was adopted to assess risk of bias. Pooled odd ratios (ORs) and heterogeneity (I2) were estimated on the basis of random effects models. **RESULTS:** We identified 22 potentially relevant studies from 1,171 citations. Of these, 9 studies (3 cohort, 5 case–control and 1 case-case-time-control) with a total of 155,789 subjects and 10,203 cases of stroke were eligible for final analysis. Use of antipsychotics was associated with a significantly higher risk of developing stroke [OR 1.57, 95% confidence interval (CI) 1.29-1.98, I2 = 92.4%]. The pooled OR for stroke was 1.58 [95% CI 1.01-2.49, I2 = 68.4%] with exposure to conventional antipsychotics and 1.06 [95% CI 0.59-1.89, I2 = 56.2%] with exposure to atypical antipsychotics. Subgroup analysis of conventional antipsychotics showed elderly patients over 64 years old were at lower risk for stroke [OR 1.37, 95% CI 0.87-2.17, I2 = 64.5%]. Due to limited data on individual agents, only Risperidone was evaluated in the subgroup analysis of atypical antipsychotics. Risperidone users were less likely to develop stroke than non-users of antipsychotics [OR 0.63, 95% CI 0.33-1.17, I2 = 55.2%]. **CONCLUSIONS:** Exposure to conventional antipsychotic was associated with a significant increase in stroke risk. Nonetheless, use of atypical antipsychotics revealed lower risk of stroke. Given heterogeneity among eligible studies, additional research is needed.

PCV6

BURDEN OF HEART FAILURE IN LATIN AMERICA: A SYSTEMATIC REVIEW AND META-ANALYSIS

Ciapponi A, Bardach A, Calderón M, Alcaraz A, Matta MG, Chaparro M, Soto N
Institute for Clinical Effectiveness and Health Policy (IECS), Buenos Aires, Argentina

OBJECTIVES: Heart failure (HF) is a common clinical syndrome representing the end-stage of several cardiac diseases. Our objective was to estimate the burden of heart failure in Latin America. **METHODS:** A systematic review and meta-analysis was performed. We searched in MEDLINE, EMBASE, LILACS, and CENTRAL from January 1994 to June 2014. We included non-comparative data from experimental and observational studies. No language restriction was imposed. We included studies with samples of at least 50 participants of 18 years of age or older with HF. The outcomes analyzed were incidence, prevalence, hospitalization rates and case fatality ratios of HF at different time points, length of stay and mortality. **RESULTS:** The search retrieved 4792 references of which 143 studies were finally included. Most were conducted in South America (92%), particularly in Brazil (64%). The mean age was 60 ± 9 years and the mean ejection fraction was 36 ± 9%. Most studies evaluated more than one etiology (79%) but the etiology more studies exclusively was Chagas disease (13%). The incidence of HF ranged from 199 to 557 cases per 100,000 person-years and the pooled prevalence was 1%, being higher in older populations. Hospitalization rates in patients with HF ranged from 28 to 31% at different time points, and the median length of stay was 7.0 days. In-hospital mortality was 11.7%, being higher in patients with worse ejection fraction, with ischemic and with Chagas disease. Mortality at one year was 24.52% (95%CI 19.42 to 30.02). **CONCLUSIONS:** This SR of HF in Latin America, could help decision-makers to design better preventive strategies, and guide effective patient-centered care.

CARDIOVASCULAR DISORDERS – Cost Studies

PCV7

BUDGET IMPACT ANALYSIS OF THE USE OF ALTEPLASE IN THE TREATMENT OF ACUTE ISCHAEMIC STROKE IN MEXICO

Huicochea-Bartelt JL[1], Palacios E[2], Zapata L[2], Herran S[1]
[1]*Boehringer Ingelheim, Distrito Federal, Mexico,* [2]*Guia Mark, Distrito Federal, Mexico*

OBJECTIVES: To estimate the economic impact of the use of alteplase versus best supportive care (BSC) in patients with acute ischemic stroke in Mexico. **METHODS:** A decision tree cost-effectiveness (CE) model assessed the treatment related cost for Alteplase and BSC related to two mayor disease branches: with or without intracranial hemorrhage. Terminal nodes in each arm included death, independent- or dependent survival. Published results of head to head clinical trials efficacy inputs populated the model. Treatment algorithm was obtained from the local governmental guide. Public institutional direct medical costs (2014 purchases and price tabulators) where retrieved to adopt the national health system perspective. Governmental databases and 2014 purchases provided the epidemiology inputs. A five year forecast estimated the budget impact of the use of alteplase versus BSC. **RESULTS:** 7,976 patients yearly were calculated to require medical attention due to an acute ischaemic stroke in Mexico. Mean saving per patient in the alteplase versus BSC arm was estimated to be US$67,142.76 at the CE model. 16% versus 12% positive response to treatment was seen at alteplase and BSC arms respectively. Starting at a 4% Market share level, and assuming an increasing share at a 1% rate per year, potential savings for new cases at year five (8% share) were estimated to be as high as US$35,342,527.00. **CONCLUSIONS:** At a better response rate with lower costs of treatment, alteplase was estimated to be a cost-saving therapy versus BSC in a CE model. In a five year budget impact analysis, this novel alternative showed to bring potential savings in the public Mexican institutional context versus BSC. The savings proportionally increase with a higher levels of patients treated and market share.

PCV8

BUDGET IMPACT ANALYSIS OF THE USE OF TENECTEPLASE IN THE TREATMENT OF ACUTE MYOCARDIAL INFARCTION IN MEXICO

Huicochea-Bartelt JL[1], Palacios E[2], Zapata L[2], Herran S[1]
[1]*Boehringer Ingelheim, Distrito Federal, Mexico,* [2]*Guia Mark, Distrito Federal, Mexico*

OBJECTIVES: To estimate the economic impact of the use of tenecteplase versus streptokinase in patients with acute myocardial infarction (AMI). **METHODS:** A decision tree cost-effectiveness (CE) model assessed the treatment related cost for tenecteplase and streptokinase related to two mayor disease branches: with or without acute reperfusion therapy. In the reperfusion arm, terminal nodes included none or one or more complications; those without therapy could only survive or die. Complications comprised death, reinfarction, cardiac failure, cerebral infarction, minor and mayor bleedings and intracranial hemorrhage. Published results of head to head clinical trials or indirect comparisons efficacy inputs populated the model. Treatment algorithm was obtained from the local governmental guide. Public institutional direct medical costs (2014 purchases and price tabulators) where retrieved to adopt the national health system perspective. Governmental databases and 2014 purchases provided the epidemiology inputs. A five year forecast estimated the budget impact of the use of tenecteplase versus streptokinase. **RESULTS:** 20,002 patients yearly were calculated to require medical attention due to an AMI in Mexico. Mean saving per patient in the tenecteplase versus the streptokinase arm was estimated to be US$1,920.00 at the CE model. 98% versus 93% positive response to treatment was seen at tenecteplase and streptokinase arms respectively. Starting at a 3% Market share level, and assuming an increasing share at a 3% rate per year, potential savings for new cases at year five (15% share) were estimated to be as high as US$16,371,461.00. **CONCLUSIONS:** At a better response rate with lower costs of treatment, tenecteplase was estimated to be a cost-saving therapy versus streptokinase in a CE model. In a five year budget impact analysis, this novel alternative showed to bring potential savings in the public Mexican institutional context versus streptokinase. The savings proportionally increase with a higher market share.

PCV9

IMPACTO ORÇAMENTÁRIO DO EVEROLIMO, SIROLIMO E TACROLIMO PARA IMUNOSSUPRESSÃO EM TRANSPLANTADOS CARDÍACOS NO SISTEMA PÚBLICO DE SAÚDE DO BRASIL

Schneiders RE, Bastos EA, Domingues PH, Xavier LC, Reis FC, Alexandre RF, Nascimento Junior JM
Brazilian Ministry of Health, Brasília, Brazil

OBJETIVOS: Analisar o impacto orçamentário da do everolimo, sirolimo e tacrolimo para transplantados cardíacos no Sistema Público de Saúde do Brasil (SUS). **MÉTODOS:** Para estimar a população que realizou transplante cardíaco no Brasil passível de utilizar esses medicamentos, desenhou-se coorte hipotética a partir do número de transplantes de coração no Brasil entre 1999 e 2013, obtido por meio do Sistema de Informações do SUS, e da taxa anual de sobrevida ao longo de 15 anos, extraída de estudo de coorte multicêntrico internacional. Considerando que os medicamentos em análise estão disponíveis no SUS para transplantados